



State of Utah
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DIVISION OF OIL, GAS AND MINING

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September 1, 1999

TO: File

THRU: Daron Haddock, Permit Supervisor

FROM: Robert Davidson, Soils Reclamation Specialist

RE: Permit Modification to As-Built Conditions, Plateau Mining Corporation, Willow Creek Mine, ACT/007/038-98G, Folder #2, Carbon County, Utah

SYNOPSIS:

Cyprus Plateau Mining Corporation (CPMC) has revised and updated the Willow Creek Mine permit to as-built status. This submittal was first reviewed by R. Davidson in December 1998, and then again in May 1999 by P. Burton. The As-Built submittal documents field changes made during and after construction, including amendment modifications for the Clean Coal Stockpile Expansion, degassification wells, and Barn Canyon Shaft. This Technical Analysis reviews the latest submission made on August 3, 1999.

TECHNICAL ANALYSIS:

OPERATION PLAN

TOPSOIL AND SUBSOIL

Regulatory Reference: 30 CFR Sec. 817.22; R645-301-230.

Analysis:

The As-built submittal includes discussion of topsoil salvage and storage as follows:

- Topsoil Salvage
- Soil Storage in Gravel Canyon

Topsoil Salvage

The disturbed area boundaries shown on Figure 3.1-1 Barn Canyon Shaft Facility Soils Study have been changed from the original map submitted in 1998. Boundaries of the soil map units were extrapolated from the original map based upon information received from Jim Nyenhuis. Exhibit 5, Soils Information, contains the original Barn Canyon soil survey and field notes, including the original Figure 3.1-1, Soils Map.

Subsequent permit modifications since construction have resulted in an overall increase of disturbance acreage for the Willow Creek Mine. Updated soils operational information concerning these modifications are documented. These permit modifications include the clean coal stockpile expansion, degassification wells, Schoolhouse Canyon Refuse soil salvage, and Barn Canyon Shaft installation. The following table summarizes each of these permit modifications in terms of acreage and total soils salvaged:

Permit Area	disturbed acreage	Soil Salvage Yd ³
Barn Canyon topsoil	0.46	906
Barn Canyon Substitute Topsoil	0.46	1,646
Clean Coal Pile	3.91	10,639
Schoolhouse Canyon	7.35	15,500
Degassification wells	2.2	2,319

Within the Barn Canyon disturbance area, *Map Unit A, Perma sandy loam*, is mapped in an undisturbed area under predominantly Gambel's oak vegetation. An average 2 feet of suitable soil is available for salvage. Pockets of soil salvage may reach depths of 35 inches, but are not included within the projected soil salvage volumes. This soil is classified as a Mollisol which have deep rich A horizons. This soil will be salvaged and segregated from other soils salvaged from this site as described on page 4.5-12 and Table 5.4-1 of the MRP. Table 4.2-1 indicates that 345.8 yards of Mollisol (Undisturbed-A) will be salvaged and placed in the Willow Creek storage location as shown on Map 18B. The total projected acreage for soil salvage is estimated at 0.46 acres. If the entire area within the disturbed area boundary is disturbed, the maximum

area would increase to 0.84 acres.

Topsoil Storage

Four long-term soil storage sites are described on page 4.5-53 of the MRP. They are the Gravel Canyon site; two storage piles in Crandall Canyon; and a storage site at Willow Creek. The Mollisol soil which will be separately handled during the Barn Canyon development will be placed at the Willow Creek site as shown on Map 18B. Table 5.4-1 indicates that the Barn Canyon project will generate 2,555 CY of substitute topsoil. This is a misleading statement, actually, there will be 906 CY of topsoil salvaged and the remaining 1,646 CY qualifies as substitute topsoil to be stored at gravel canyon. If all of the 2,555 CY noted in Table 5.4-1 is substitute topsoil, then Table 4.2-1 is in error. Table 4.2-1 and Table 5.4-1 must be brought to agreement.

Tables 4-2.1A and Table 4-2.1 relate the projected and actual soil salvage volumes, respectively. However, in this submittal, the volumes itemized in Table 4-2.1A are actual salvage volumes. The figures in Table 4.2-1 have been altered from those in the MRP, acreage and depth of salvage have been omitted from this table and volumes do not correlate with those itemized in Table 4-2.1 of the approved MRP. Table 4-2.1 should include a subheading for topsoil salvaged from the degassification well sites. In both Table 4-2.1 and 4-2.1A, it is not clear whether the disturbed soil salvaged from 7.35 acres at the Schoolhouse Canyon site is the total projected to be salvaged or whether the acreage and yardage figures will change in the near future with refuse storage expansion. To eliminate confusion, Plateau Mining Corporation and the Division will meet together to successfully compile soil recovery and storage information into a table format that is clear and concise, without loss of information. The re-compiled tables will be submitted at completion.

Findings:

As determined in the analysis and findings of this Technical Analysis, approval of the plan is subject to the following Permit Condition. The applicant is subject to compliance with the following Permit Condition and has committed to comply with the requirements of this condition.

Accordingly, the permittee has committed to comply with the requirements of the following Permit Condition, as specified, and in accordance with the requirements of:

R645-301-121.100 and R645-301-121.200, Tables 4-2.1, Table 4-2.1A and Table 5.4-1 must be edited for clarity and brought into agreement as described in the technical analysis section above.

RECLAMATION PLAN

TOPSOIL AND SUBSOIL

Regulatory Reference: 30 CFR Sec. 817.22; R645-301-240.

Analysis:

Information contained in Section 5.2.2.2, Soil Replacement Practices, shows updated soil replacement information.

Degassification Wells - The information concerning reclamation of the degassification wells has been omitted from section 5.2.2.2 and Table 4-2.1. This information should not be deleted from the MRP.

Findings:

As determined in the analysis and findings of this Technical Analysis, approval of the plan is subject to the following Permit Condition. The applicant is subject to compliance with the following Permit Condition and has committed to comply with the requirements of this condition.

Accordingly, the permittee has committed to comply with the requirements of the following Permit Condition, as specified, and in accordance with the requirements of:

R645-301-120, Degassification well reclamation information should be retained in the MRP, section 5.2.2.2.